

Name: \_\_\_\_\_

**at1110paper\_practice\_test (v119)**

1. Factor the expression.

$$49x^2 - 9$$

$$(7x - 3)(7x + 3)$$

2. Solve the equation.

$$11x^2 + 32x - 6 = 4x^2 + 5x - 2$$

$$7x^2 + 27x - 4 = 0$$

$$(7x - 1)(x + 4) = 0$$

$$x = \frac{1}{7} \quad x = -4$$

3. Expand the following expression into standard form.

$$(7x - 9)(7x + 9)$$

$$49x^2 + 63x - 63x - 81$$

$$49x^2 - 81$$

4. Factor the expression.

$$x^2 + 12x + 35$$

$$(x + 5)(x + 7)$$

5. Expand the following expression into standard form.

$$(8x - 3)^2$$

$$64x^2 - 24x - 24x + 9$$

$$64x^2 - 48x + 9$$

6. Solve the equation with factoring by grouping.

$$6x^2 - 8x + 15x - 20 = 0$$

$$(2x + 5)(3x - 4) = 0$$

$$x = \frac{-5}{2} \quad x = \frac{4}{3}$$

7. Expand the following expression into standard form.

$$(9x - 8)(6x + 7)$$

$$54x^2 + 63x - 48x - 56$$

$$54x^2 + 15x - 56$$

8. Solve the equation.

$$(7x + 4)(5x - 8) = 0$$

$$x = \frac{-4}{7} \quad x = \frac{8}{5}$$